FOR QUALITY & EXCELLENCE IN HIGHER EDUCATION
Accredited by NAAC

BANGALORE UNIVERSITY
DEPARTMENT OF CIVIL ENGINEERING

Phone Off: 080-22961935 / 1946
E-mail: centrans9@gmail.com

JNANA BHARATHI
BANGALORE - 560 056

BUB/CTE/2014-15

Date: 22-01-2015

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements and asphalting to HMT5th Block roads in Ward No 09}in Vidyaranypaura sub division}.

Ref.: Letter No. Testing/BUB/2014-15, dated 20-01-2015

Name of the Agency/Contractor* : Mr. C.Shivaraj, Contractor,BBMP, Bangalore.

Report required for* : Assistant Executive Engineer,
Vidyaranypaura Sub-Division, BBMP, Bangalore.

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, IV Revision-2001
53	100.00	100
45	97.10	95-100
26.5	---	-
22.4	75.60	60-80
11.2	55.20	40-60
4.750	37.00	25-40
2.360	18.00	15-30
0.600	17.60	8--22
0.075	3.00	0--8

*As Furnished by Client.

The Results relate only to the items tested.

G.R. HARISH
Professor
Department of Civil Engineering
Jnana Bharathi Compus
BANGALORE UNIVERSITY
Bangalore-560 056.

22/1/2015

Dr. MANJESH .L
ME (Civil Engg). Ph D MISTE.MIRC
Associate Professor
Department of Civil Engineering
Bangalore University Jnanabharathi Campus
BANGALORE- 560 056
e- mail: manjeshl@yahoo.com

FOR QUALITY & EXCELLENCE IN HIGHER EDUCATION
★ ★ ★ ★ ★
Accredited by NAAC

BANGALORE UNIVERSITY
DEPARTMENT OF CIVIL ENGINEERING

Phone Off: 080-22961935 / 1946
E-mail: centrans9@gmail.com

JNANA BHARATHI
BANGALORE - 560 056

BUB/CTE/2014-15

Date: 27-01-2015

TEST REPORT ON BITUMINOUS MIXES
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: Testing of Bitumen Premix Sample (Semi Dense Bituminous Concrete-SDBC). {Project*: Improvements and asphalting to HMT 5th Block roads in Ward No 09}in Vidyaranypaura sub division}.

Ref.: Letter No. Testing/BUB/2014-15, dated 24-01-2015

Name of the Agency/Contractor* : Mr. C.Shivaraj, Contractor,BBMP, Bangalore.

Report required for* : Assistant Executive Engineer, Vidyaranypaura Sub-Division, BBMP, Bangalore.

TEST RESULTS :

5. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.12** %
6. **Gradation Test** :

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-15 of MORTH Specfications-2001 (Grading – 2)
13.2	**100.00**	100
9.5	**96.40**	90—100
4.75	**46.10**	35—51
2.36	**28.30**	24—39
1.18	**18.70**	15—30
0.3	**12.00**	09—19
0.075	**4.80**	03—08

*As Furnished by Client.

The Results relate only to the items tested.

AE-9

G.R. HARISH
Professor
Department of Civil Engineering
Jnana Bharathi Compus
BANGALORE UNIVERSITY
Bangalore-560 056.

27-01-2015

Dr. MANJESH .L
ME (Civil Engg .). Ph D MISTE.MIRC
Associate Professor
Department of Civil Engineering
Bangalore University Jnanabharathi Campus
BANGALORE- 560 056
e- mail: manjeshl@yahoo.com

FOR QUALITY & EXCELLENCE IN HIGHER EDUCATION
★ ★ ★ ★ ★
Accredited by NAAC

BANGALORE UNIVERSITY
DEPARTMENT OF CIVIL ENGINEERING

Phone Off: 080-22961935 / 1946
E-mail: centrans9@gmail.com

JNANA BHARATHI
BANGALORE - 560 056

BUB/CTE/2014-15/ Date: 22-01-2015

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements and Asphalting to HMT 5th Block Road in Ward No.09}

Ref.: Letter No. Testing/BUB/2014-15/ dated 20-01-2015

Sample supplied to lab by: Sri.C.Shivaraj, Contractor, Bangalore.

Report required for: Assistant Executive Engineer,
Vidyaranyapura Sub-Division.
BBMP, Bangalore.

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, IV Revision-2001
53.00	**100.00**	100
45.00	**95.70**	95-100
26.50	**---**	-
22.40	**73.60**	60-80
11.20	**45.20**	40-60
4.75	**35.00**	25-40
2.36	**22.10**	15-30
0.600	**19.00**	8-22
0.075	**4.80**	0-8

TABLE 1 2 :

SL No	Test conducted	Sample No	Results	Requirements as per IS:383-1970 & Test Conforms to IS 2386(Part I to IV) – 1963 (Reaffirmed on 2007)
1	Flakiness & Elongation Index	01	**24.30%**	Not more than 30 %
2	Impact Value	----,,----	**25.10 %**	Not more then 24.00 % for BC Not more then 27.00 % for DBM Not more then 30.00 % for BM/WMM

*As Furnished by Client

The Results relate only to the items tested.

G.R. HARISH
Professor
Department of Civil Engineering
Jnana Bharathi Campus
BANGALORE UNIVERSITY
Bangalore-560 056.

Dr. MANJESH .L
ME(Civil Engg.) Ph.D. MISTE, MIRC
Associate Professor
Department of Civil Engineering
Bangalore University. Jnanabharathi Campus,
BANGALORE 560 056.
E-mail: manjesnl@yahoo.com

FOR QUALITY & EXCELLENCE IN HIGHER EDUCATION
★ ★ ★ ★ ★
Accredited by NAAC

BANGALORE UNIVERSITY
DEPARTMENT OF CIVIL ENGINEERING

Phone Off: 080-22961935 / 1946
E-mail: centrans9@gmail.com

JNANA BHARATHI
BANGALORE - 560 056

BUB/CTE/2014-15/ Date: 22-01-2015

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements and Asphalting to HMT 5th Block Road in Ward No.09}

Ref.: Letter No. Testing/BUB/2014-15/ dated 20-01-2015

Sample supplied to lab by: Sri.C.Shivaraj, Contractor, Bangalore.

Report required for: Assistant Executive Engineer,
Vidyaranyapura Sub-Division.
BBMP, Bangalore.

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, IV Revision-2001
53.00	**100.00**	100
45.00	**96.40**	95-100
26.50	**---**	-
22.40	**75.00**	60-80
11.20	**44.00**	40-60
4.75	**32.00**	25-40
2.36	**20.50**	15-30
0.600	**17.00**	8-22
0.075	**5.20**	0-8

TABLE 12 :

SL No	Test conducted	Sample No	Results	Requirements as per IS:383-1970 & Test Conforms to IS 2386(Part I to IV) – 1963 (Reaffirmed on 2007)
1	Flakiness & Elongation Index	01	**23.40%**	Not more than 30 %
2	Impact Value	----,,----	**24.70 %**	Not more then 24.00 % for BC Not more then 27.00 % for DBM Not more then 30.00 % for BM/WMM

*As Furnished by Client

The Results relate only to the items tested.

AE 9

G.R. HARISH
Professor
Department of Civil Engineering
Jnana Bharathi Campus
BANGALORE UNIVERSITY
Bangalore-560 056.

24/01/2015

Dr. MANJESH .L
ME(Civil Engg.) Ph.D., MISTE, MIRC
Associate Professor
Department of Civil Engineering
Bangalore University, Jnanabharathi Campus,
BANGALORE 560 056.
E-mail: manjeshl@yahoo.com

FOR QUALITY & EXCELLENCE IN HIGHER EDUCATION
Accredited by NAAC

BANGALORE UNIVERSITY
DEPARTMENT OF CIVIL ENGINEERING

Phone Off: 080-22961935 / 1946
E-mail: centrans9@gmail.com

JNANA BHARATHI
BANGALORE - 560 056

BUB/CTE/2014-15/ Date: 27-01-2015

TEST REPORT ON BITUMINOUS MIXES
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: Testing of Bitumen Premix Sample (Semi Dense Bituminous Concrete-SDBC).
{Project*: Improvements and Asphalting to HMT 5th Block Road in Ward No.09}
Ref.: Letter No. Testing/BUB/2014-15/ dated 24-01-2015
Sample supplied to lab by: Sri.C.Shivaraj, Contractor,
Bangalore.
Report required for: Assistant Executive Engineer,
Vidyaranyapura Sub-Division,
BBMP, Bangalore.

TEST RESULTS:

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.08%**
2. **Gradation Test** :

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-15 of MORTH Specifications-2001 (Grading – 2)
13.2	**100**	100
9.5	**96.00**	90—100
4.75	**47.00**	35—51
2.36	**36.20**	24—39
1.18	**24.00**	15—30
0.3	**19.40**	09—19
0.075	**4.80**	03—08

*As Furnished by Client

The Results relate only to the items tested.

G.R. HARISH
Professor
Department of Civil Engineering
Jnana Bharathi Compus
BANGALORE UNIVERSITY
Bangalore-560 056.

Dr. MANJESH .L
ME(Civil Engg.) Ph.D. MISTE, MIRC
Associate Professor
Department of Civil Engineering
Bangalore University, Jnanabharathi Campus,
BANGALORE 560 056.
E-mail: manjeshl@yahoo.com

FOR QUALITY & EXCELLENCE IN HIGHER EDUCATION
Accredited by NAAC

BANGALORE UNIVERSITY
DEPARTMENT OF CIVIL ENGINEERING

Phone Off: 080-22961935 / 1946
E-mail: centrans9@gmail.com

JNANA BHARATHI
BANGALORE - 560 056

Date: 27-01-2015

TABLE 12 :

SL No	Test conducted	Sample No	Results	**Requirements** as per IS:383-1970 & Test Conforms to IS 2386(Part I to IV) – 1963 (Reaffirmed on 2007)
1	Flakiness & Elongation Index	01	**24.70%**	Not more than 30 %
2	Impact Value	----,,----	**22.60 %**	Not more then 24.00 % for BC Not more then 27.00 % for DBM Not more then 30.00 % for BM/WMM
3	Water absorption	----,,----	**0.40%**	Not more than 1.0 %
4	Stripping test. (Coating and stripping of Bitumen aggregate mixtures)	----,,----	**97.00 %**	Minimum retained coating 95.0 **%**

*As Furnished by Client

The Results relate only to the items tested.

27/01/2015

Dr. MANJESH .L
ME(Civil Engg.) Ph.D., MISTE, MIRC
Associate Professor
Department of Civil Engineering
Bangalore University, Jnanabharathi Campus,
BANGALORE 560 056.
E-mail: maniesnl@yahoo.com

DEPARTMENT OF CIVIL ENGINEERING * BANGALORE UNIVERSITY *

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ವಿದ್ಯಾರಣ್ಯಪುರ ಉಪ ವಿಭಾಗ
ಯಲಹಂಕ ವಲಯ,
ಬೃ.ಬೆಂ.ಮ.ಪಾ., ಬೆಂಗಳೂರು-97.